

generators are in part 112, subpart 112.50, of this chapter.

(b) Each generator prime mover must have an overspeed device that is independent of the normal operating governor and adjusted so that the speed cannot exceed the maximum rated speed by more than 15 percent.

(c) Each prime mover must shut down automatically upon loss of lubricating pressure to the generator bearings if the generator is directly coupled to the engine. If the generator is operating from a power take-off, such as a shaft driven generator on a main propulsion engine, the generator must automatically declutch (disconnect) from the prime mover upon loss of lubricating pressure to generator bearings.

[CGD 94-108, 61 FR 28277, June 4, 1996; 61 FR 33045, June 26, 1996, as amended at 62 FR 23907, May 1, 1997]

§ 111.12-3 Excitation.

Excitation must meet sections 4/5C2.19.1, 4/5D2.5.1, 4/5D2.5.2, and 4/5D2.17.6 of the ABS Rules for Building and Classing Steel Vessels or, for a mobile offshore drilling unit, section 4/3.23 of the ABS Rules for Building and Classing Mobile Offshore Drilling Units, except a static exciter must not be used for excitation of an emergency generator unless it is provided with a permanent magnet or a residual magnetism type exciter that has the capability of voltage build-up after two months of no operation.

[CGD 74-125A, 47 FR 15236, Apr. 8, 1982, as amended by CGD 94-108, 61 FR 28277, June 4, 1996; 62 FR 23908, May 1, 1997]

§ 111.12-5 Generator construction and testing.

Each generator must meet the applicable construction and test requirements of section 4/5 of the ABS Rules for Building and Classing Steel Vessels or, for mobile offshore drilling units, section 4/3 of the ABS Rules for Building and Classing Mobile Offshore Drilling Units.

[CGD 94-108, 61 FR 28277, June 4, 1996; 61 FR 33045, June 26, 1996, as amended at 62 FR 23908, May 1, 1997]

§ 111.12-7 Voltage regulation and parallel operation.

Voltage regulation and parallel operation must meet sections 4/5C2.19.2, 4/5C2.19.3, 4/5C2.21.2, and 4/5C2.21.3 of the ABS Rules for Building and Classing Steel Vessels or, for mobile offshore drilling units, sections 4/3.31 and 4/3.33 of the ABS Rules for Building and Classing Mobile Offshore Drilling Units.

[CGD 94-108, 61 FR 28277, June 4, 1996; 61 FR 33045, June 26, 1996, as amended at 62 FR 23908, May 1, 1997]

§ 111.12-9 Generator cables.

(a) The current-carrying capacity of generator cables must not be:

- (1) Less than 115 percent of the continuous generator rating; or
- (2) Less than 115 percent of the overload for a machine with a 2 hour or greater overload rating.

(b) Generator cables must not be in the bilges.

§ 111.12-11 Generator protection.

(a) *Applicability.* This section applies to each generator except a propulsion generator.

(b) *General.* Each ship's service generator and emergency generator must be protected by an individual, tripfree, air circuit breaker whose tripping characteristics can be set or adjusted to closely match the generator capabilities and meet the coordination requirements of Subpart 111.51. Each circuit breaker must contain the trips required by this section.

(c) *Type of trips.* A circuit breaker for a generator must:

(1) Open upon the shutting down of the prime mover;

(2) Have longtime overcurrent trips or relays set as necessary to coordinate with the trip settings of the feeder circuit breakers; and

(3) Not have an instantaneous trip with the exception that an instantaneous trip is required if:

- (i) Three or more alternating-current generators can be paralleled; or
- (ii) The circuit breaker is for a direct current generator.

(d) *Setting of longtime overcurrent trips.* The pickup setting of the longtime overcurrent trip of a generator circuit breaker must not be larger than: